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Occurrence of a Japanese Representative of the
North American Genus *Megeremaeus*
(Acari, Megeremaeidae)

Taxonomic Notes on Oribatid Mites of Hokkaido. IV

With 17 Text-figures

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ABSTRACT *Megeremaeus expansus* sp. nov. is described from Hokkaido, North Japan. It is the third representative of the genus *Megeremaeus* and distinguishable from the two known species by the expanded notogastral setae and the presence of interlamellar ridge.

In the genus *Megeremaeus* Higgins et Woolley, 1965, two species have been known, both of which were described from North America. When the second species was found, the genus was removed by Woolley and Higgins (1968) from the family Eremaeidae to the family Megeremaeidae, which was established at the same time. In 1968, one of the authors, Fujikawa, had collected in Hokkaido a peculiar oribatid, which was later found to be a member of the genus *Megeremaeus* but not identical with any of the known megeremaeids.

In the following description of the new species, we try to change in part the style of our description to make it concise and to avoid diffuseness. Thus, the number of setae is given, for example, as $g: 5-5$ instead of "the genital aperture bears 5 pair of setae". The characters in regard to relative size (length, distance, etc.) are also mentioned with sign, for example, $ro > ro-ro$ instead of "rostral setae are longer than their mutual distance".

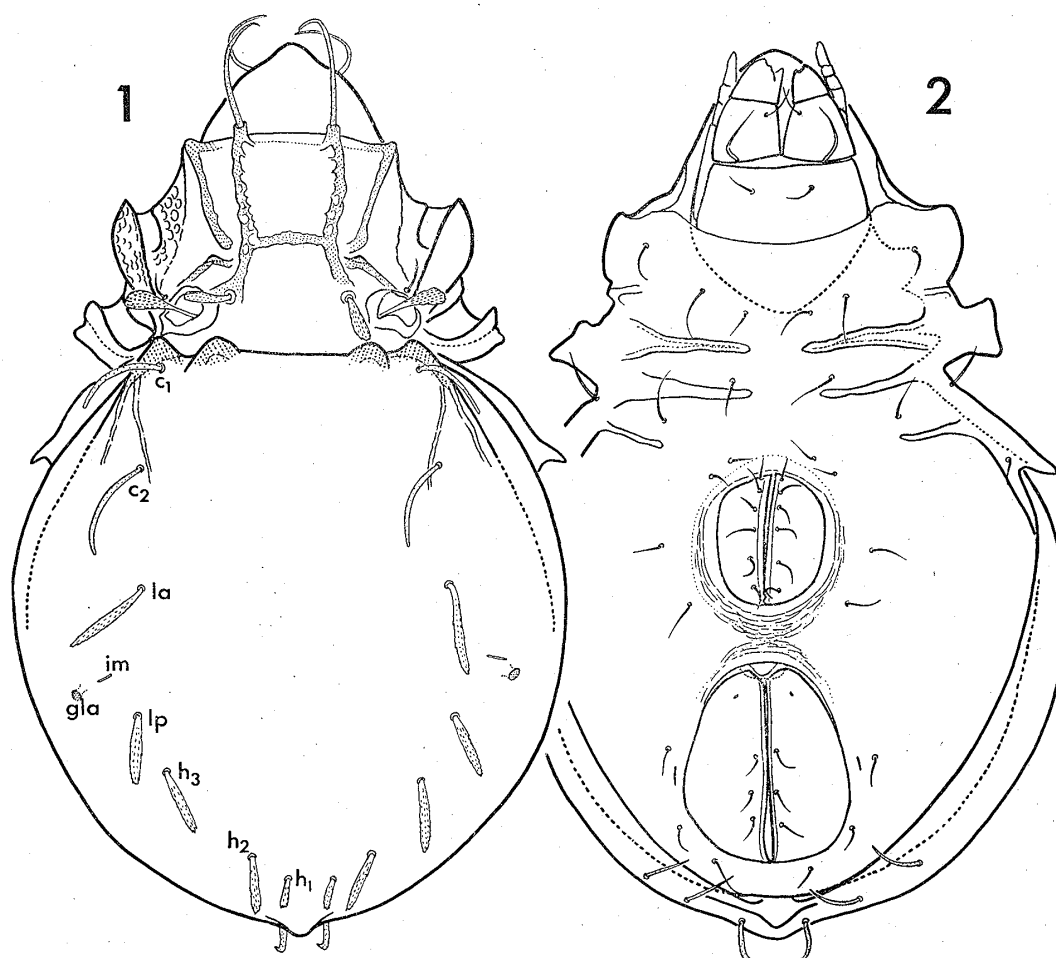


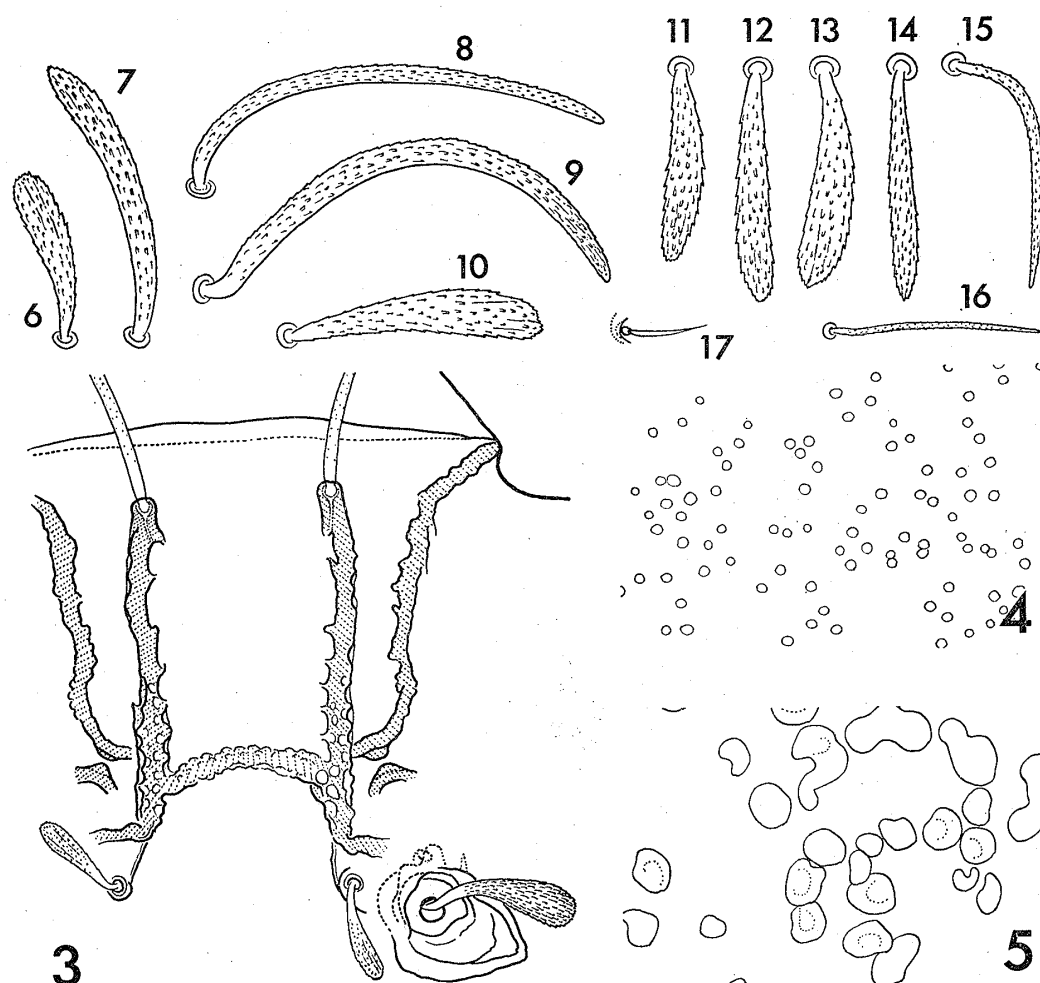
Fig. 1-2. *Megeremaeus expansus* sp. nov.—1. Dorsal side.—2. Ventral side.

Megeremaeus expansus Aoki et Fujikawa, sp. nov.

(Figs. 1-17)

Diagnosis. Dorsal setae on the posterior half of notogaster expanded to form a clavate shape. Interlamellar setae clavate. A transverse ridge connecting lamellae rather at a posterior portion. Rostral and lamellar setae strongly curved. Anal plate usually with 3 setae. Sensillus swollen at the apical portion. Notogaster with a posterior knob. Body length: 871 (950) 1143 μ ; width: 543 (605) 657 μ .

Description. Setae $la > ro > ss > in > ex$; $ro:la:in=5:7:2$; $in-in > ro-ro=la-la$; $ro/ro-ro=1.1$; $la/la-la=1.9$; $in/in-in=0.4$; $c_2 > c_1 > la > ps_2 > lp \geq h_2 = ps_1 \geq h_3 > ps_3 > h_1$; $h_1 < h_1-h_1$; $h_1 > h_1-h_2$; $l_p > l_p-h_3$ ($l_p < l_p-h_3$); g : 6-6 (6-5 in 1 ex.); ag : 1-1; an : 3-3 (3-2 in 1 ex., 3-4 in 2 ex., 4-3 in 1 ex., 4-4 in 1 ex.); ad : 3-3. Setal formula of epimerata: 3-1-3-3; claws: 3-3-3-3 (2-2-2-2 in 1 ex.). Lamellae with a rugose or areolate surface sculpture, being connected rather posteriorly by a weak transverse ridge which is called provisionally "interlamellar ridge". Lamellar seta roughened, strongly curved apically and inserted on a small but distinct lamellar



Figs. 3-17. *Megeremaeus expansus* sp. nov.—3. Lamellae and its vicinity.—4. Cerotegument on prodorsum.—5. Cerotegument on notogaster. (Figs. 4-5 were drawn in the same magnification).—6. Interlamellar seta.—7. Lamellar seta.—8-17. Notogastral setae (8. c_1 .—9. c_2 .—10. lp .—11. h_1 .—12. h_2 .—13. h_3 .—14. ps .—15. Ps_2 .—16. Ps_3 .—17. Anal seta an_1). (Figs. 6-17 were drawn in the same magnification).

apophysis. Rostral seta also roughened and strongly curled. The anterior tips of tutoria connected transversely by a thin ridge running a short distance in front of lamellar apophyses. A small knob exists just behind the posterior end of tutorium, being sometimes accompanied by a ridge running toward posterolateral direction. Pedotectum I and its vicinity having a distinctly areolate surface structure. Interlamellar seta robust and expanded distally. Sensillus bearing a head strongly swollen and roughened. Notogaster with 2 pair of anterior condyles and 10 pair of setae; to the posterior direction, the setae becoming progressively shorter and thicker; thus, setae lp and $h_1 \sim h_3$ are robust and clavate in shape; all the notogastral setae roughened from the base to the tip. The posterior end of notogaster bears a chitin-

Table 1
Comparison of important characters among 3 species
of the genus *Megeremaeus*.

	<i>M. montanus</i> Higgins et Woolley, 1965	<i>M. ditrichosus</i> Woolley et Higgins, 1968	<i>M. expansus</i> Aoki et Fujikawa, sp. nov.
Number of anal setae	3—3	2—2	3—3
Interlamellar ridge	absent	absent	present
Sensillus	expanded distally $ss=3 \times in$	slightly thickened distally $ss=2 \times in$	expanded distally $ss < 1.5 \times in$
Interlamellar setae	setiform	robust and clavate	robust and clavate
Notogastral setae	partly lanceolate	partly lanceolate	partly clavate
Rostral and lamellar setae	weakly curved	weakly curved	strongly curved
Body size (μ)	1002 \times 648	930—858 \times 618—570	871—1143 \times 543—657

ous knob. Anal fissure found on the anterior part of anal plate. Adanal seta ad_3 located usually in position anterior to adanal fissure (iad), but sometimes posterior to, or on the same level of, iad . Pedotectum IV bearing a pointed apex.

Material examined. Holotype (NSMT-Ac3335): Glehn's spruce forest in Mo-ashoro, Hokkaido, North Japan, 11-XI-1968, T. Fujikawa leg; 14 paratopotypes: the same data as the holotype. The type-series is deposited in the National Science Museum, Tokyo.

LITERATURE

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Woolley, T. A. and H. G. Higgins, 1968. Great Basin Naturalist, **28**, 172.